



A.D. 1825 . . . . . N° 5284.

S P E C I F I C A T I O N

OF

JOHN WILLIAM HIORT.

CHIMNEY OR FLUE.

L O N D O N :

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HIORT'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOHN WILLIAM HIORT, Chief Examiner in His Majesty's Office of Works and Public Buildings, Whitehall, Architect and Surveyor, send greeting.

WHEREAS His present most Excellent Majesty King George the Fourth,  
5 by His Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Eighth day of November, in the sixth year of His reign, did, for Himself, His heirs and successors, give and grant unto me, the said John William Hiort, His especial licence, that I, the said John William Hiort, my exors, admors, and assigns, or such others as I, the said John  
10 William Hiort, my exors, admors, or assigns, should at any time agree with, and no others, from time to time and at all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "AN IMPROVED CHIMNEY OR FLUE FOR DOMESTIC AND OTHER PURPOSES;"  
15 in which said Letters Patent is contained a proviso obliging me, the said John William Hiort, by an instrument in writing under my hand and seal, particularly to describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, and to cause the same to be enrolled in His said Majesty's High Court of Chancery within two calendar months next and  
20 immediately after the date of the said recited Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said John William Hiort, do hereby declare the nature of my said Invention to



*Hiort's Improved Chimney or Flue.*

consist in building chimnies or flues internally of a circular form, and with bricks so formed that any required inclination or turn, however sudden, may be given to the said chimney or flue, without any corner or sharp angle being left to gather soot or impede the draft, and also in air-chambers constructed round the said chimney or flue to prevent condensation therein, in manner 5 herein-after set forth; and in further compliance with the said proviso, I, the said John William Hiort, do hereby describe the manner in which I perform my said Invention, by the following description thereof, reference being had to the Drawing annexed, and the figures marked thereon (that is to say):

## DESCRIPTION OF THE DRAWING.

10

Figure 1 represents the section of a stack of chimnies or flues A being shewn in its whole length. It will be seen by examining this Figure that the flue is built with bricks of a peculiar form, being all segments of circles, and in a manner wedge-shaped; they are in fact so formed that it takes four bricks to complete the circle; and as the vertical joints and external angles 15 of these bricks must be so formed as to break bond at every course, eight bricks or two circles may be considered as a set, and each circle being gradually thicker at one part than the other, any required curvature may be given to the flue determined by the situation of the thick or thin part of the circle. Thus, for instance, if the circles are placed over each other with the 20 thick parts reversed alternately, as shewn at B in this Figure, a perpendicular flue will be produced. Whereas if the thick parts of the circles are placed together at any part of the chimney or flue, as at C and D, then the flue will gather from that side of the flue regularly to the right or left, as the case may be, and as shewn at C and D. It should be here observed, with regard 25 to the thickness of the circles, that a set or two placed one over the other, with the thick ends reversed, are equal in height to two courses of ordinary bricks. E is the chimney bar, which in this case is placed somewhat lower than usual; and here the circle of the flue commences, this part being what is termed the throat of the chimney, and is immediately over the fire. P is a 30 half circle continuing down to the hearth, and forming the centre of the back of the fireplace, by which arrangement the usual filling-in brickwork becomes unnecessary. F is the chimney top, consisting of a cast or wrought iron cylinder of the same diameter as the flue, and about two feet high, inclosed or built round with brickwork or masonry, as shewn in this Figure, and as will 35 be more particularly described hereafter by other Figures.

Figure 2 is a plan of the flues shewn in Figure 1, taken in the line of V, W, on Figure 1, and shews the manner in which the circle is formed by four of



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*Hiort's Improved Chimney or Flue.*

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my said bricks. In this view another important part of my said Invention is shewn, namely, the air chambers or open spaces left round the flue for the continuation of warm air round it. *r, r, r, r,* are the four bricks required to form one circle; and the parts marked *S* are the cavities or air chambers  
5 aforesaid. As the intention is to retain warm air in these cavities, they should be built as air-tight as the nature of the materials will allow. A general communication should also be kept up between the various cavities, and they should commence at the back of every fireplace.

Figure 3 is a plan of the chimney tops of Figure 1, intersected at the line  
10 *X, Y*, on Figure 1, by which it will be seen that the air chambers are continued to the top of the chimney, and then closed by means of the stone capping, as shewn at Figure 4, which is an elevation of the said chimney tops. It is the stone capping, so placed as aforesaid, that closes the top of the air chambers, and thus confines the warm air within them, for the purpose of  
15 preventing condensation in the flue.

Figure 5 is a plan of the fireplace.

Figure 6 is the section of a flue carried round the corner of a window, shewing how the circles are placed to effect such a curve as would be required for such a purpose. Figure 7 is the section of a flue variously curved, to  
20 shew the manner of placing the circles to effect such curves as are here represented.

Figure 8 is the section of one set of bricks or two circles, shewing how the vertical joints break bond; and Figure 9 is the section of one of the circles of the set.

25 It should here be stated, that I cause the inner surface of the bricks forming the aforesaid circles to be vitrified, as the soot will thereby be less liable to lodge, though I do not claim exclusive privilege to this last suggestion. But whereas I claim as my Invention a chimney or flue formed with bricks shaped as is herein-before described, and with air chambers constructed round  
30 them, as aforesaid, as also the iron tube for the chimney top, and air chambers round the same, with the manner of constructing the fireplace as aforesaid. And such an improved chimney or flue being, to the best of my knowledge, entirely new, and never before used within that part of His said Majesty's United Kingdom of Great Britain and Ireland called England, His Dominion  
35 of Wales, or Town of Berwick-upon-Tweed, I do hereby declare this to be my Specification of the same; and that I do verily believe this my said Specification doth comply in all respects fully and without reserve or disguise with the proviso in the said herein-before in part recited Letters Patent contained;



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wherefore I hereby claim to maintain exclusive right and privilege to my said Invention.

In witness whereof, I, the said John William Hiort, have hereunto set my hand and seal, this Twenty-third day of December, One thousand eight hundred and twenty-five.

5

J. W. (L.S.) HIORT.

Signed and sealed by the within-named  
John William Hiort, in the presence  
of

JAS ROARKE.

10

DOWDESWELL.

AND BE IT REMEMBERED, that on the Twenty-fourth day of December, in the year of our Lord 1825, the aforesaid John William Hiort came before our said Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

15

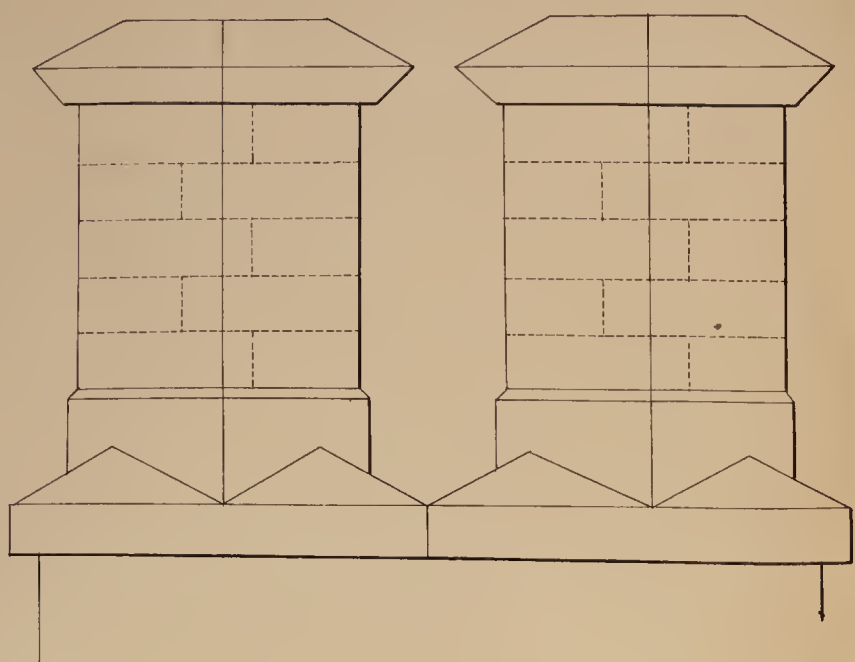
Inrolled the Twenty-fourth day of December, in the year of our Lord One thousand eight hundred and twenty-five.

LONDON:

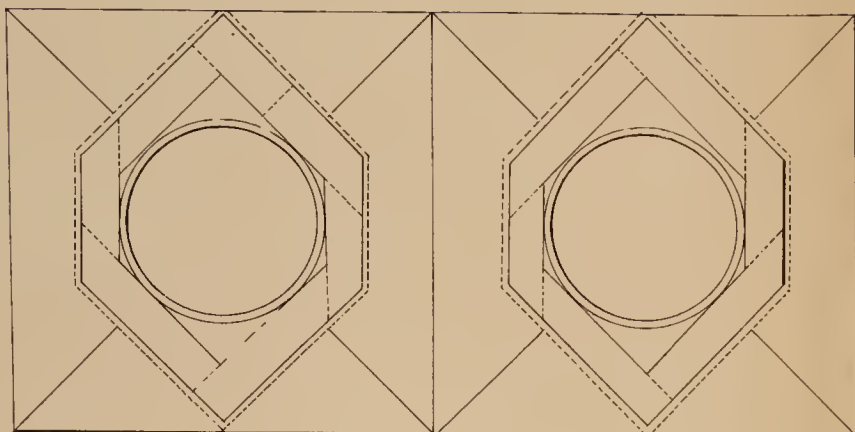
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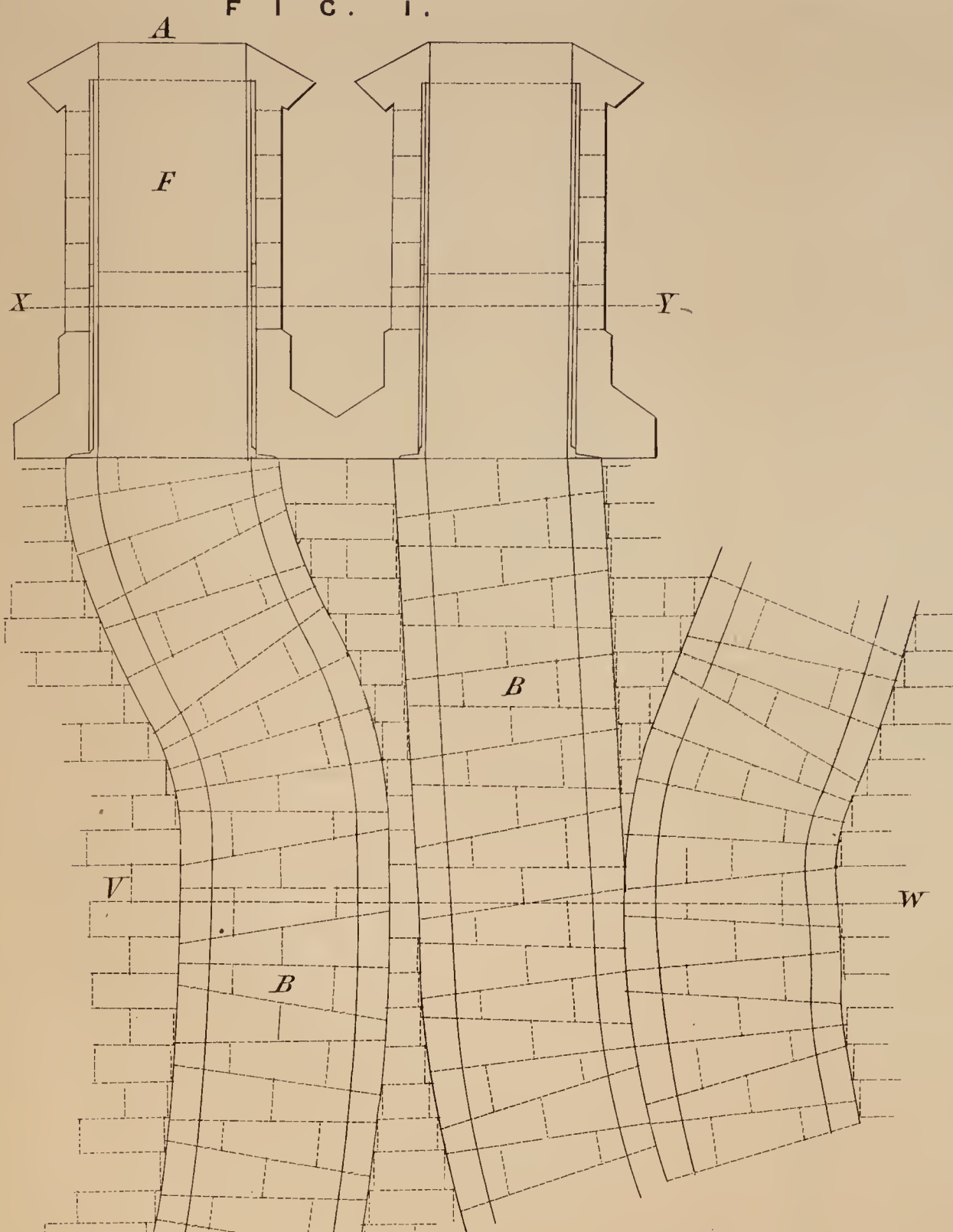
F I C . 4 .



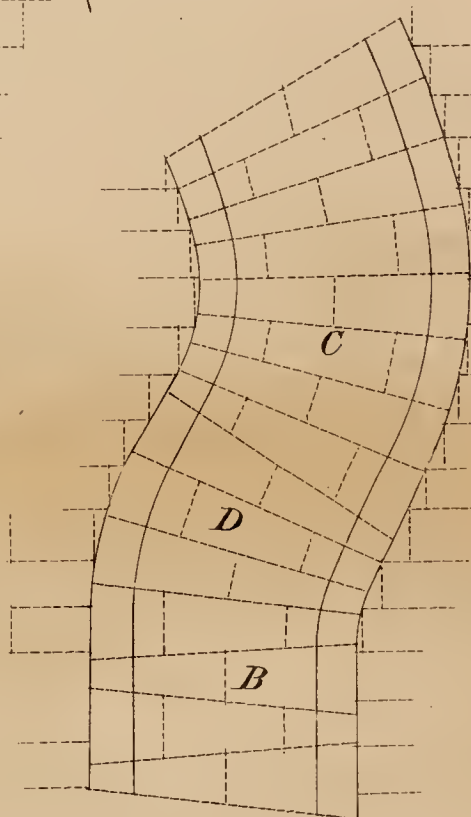
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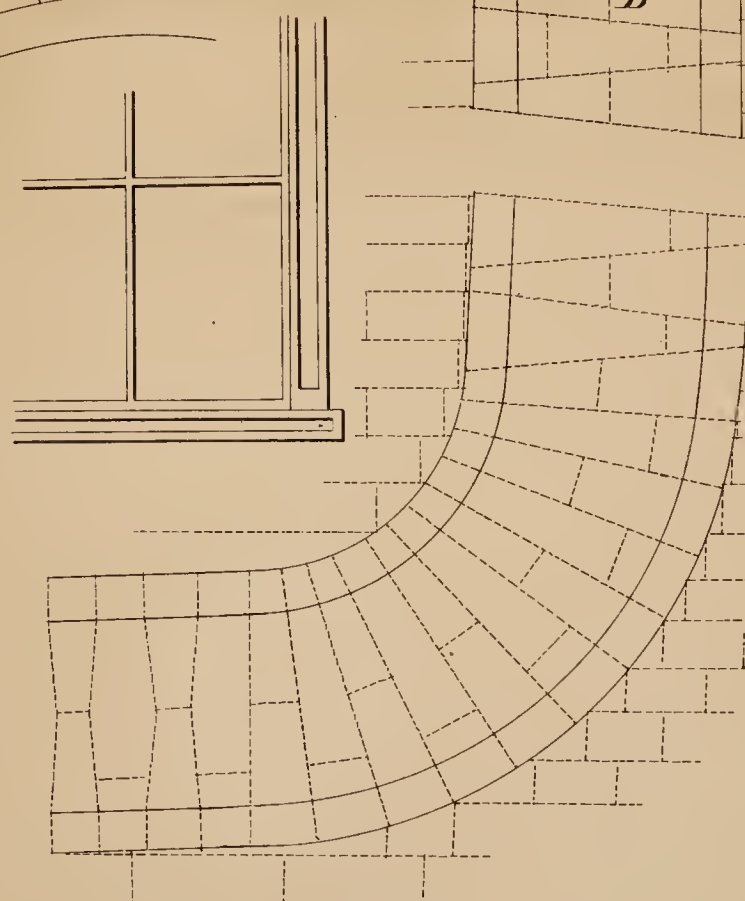
F I C . 1 .



F I C . 7 .



F I C . 6 .

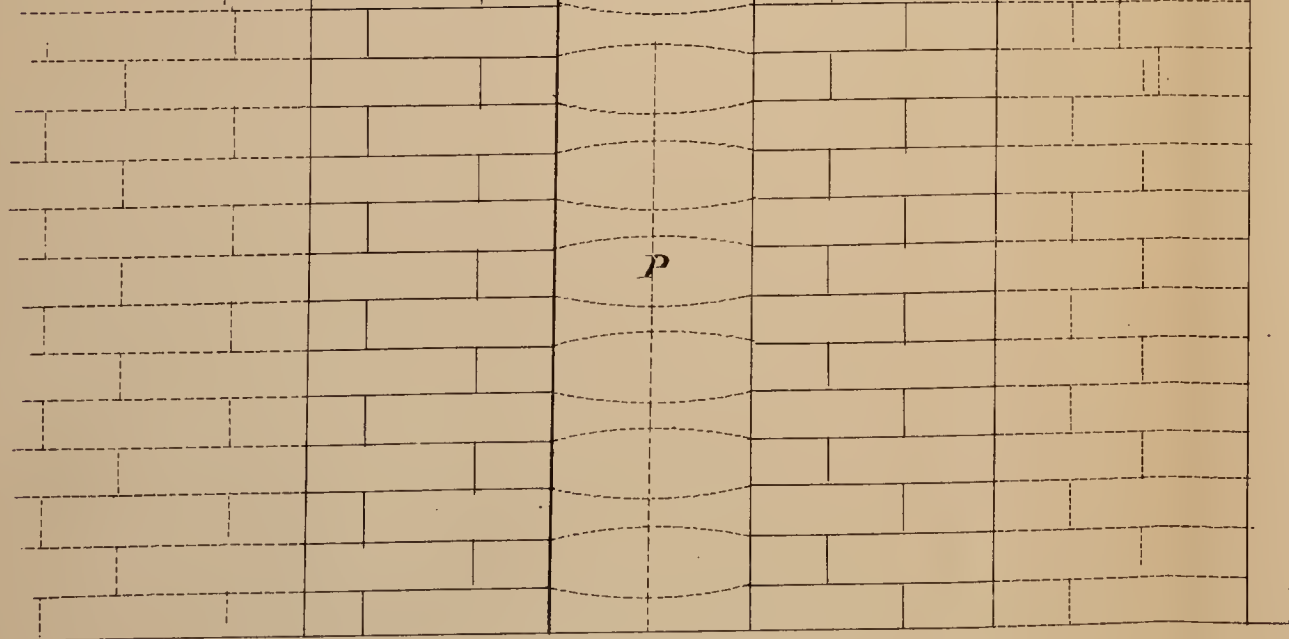


F I C . 8 .

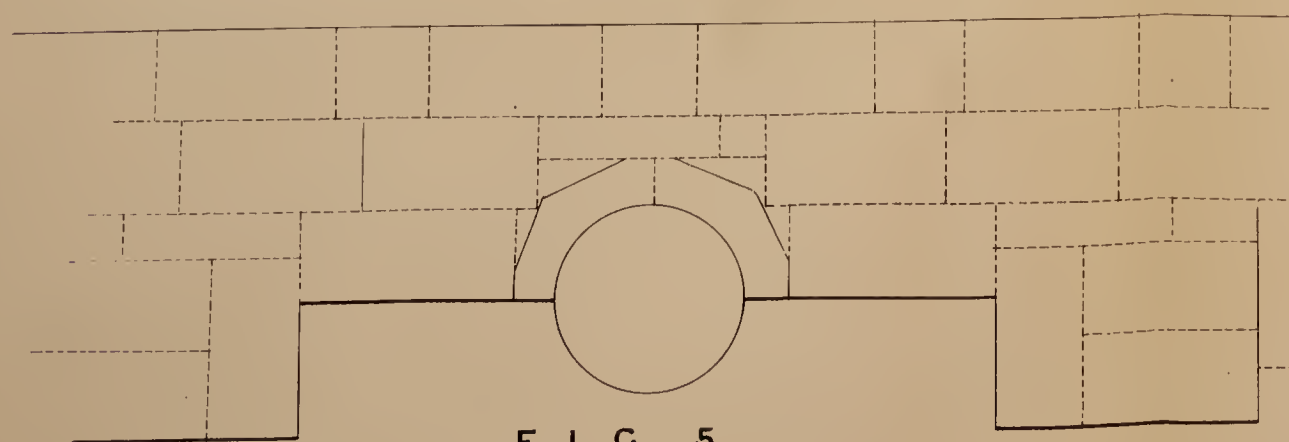


F I C . 9 .

E E



F I C . 5 .



F I C . 2 .

